METHOD FOR SHARING CONTENTS USING THE WEBDVD TECHNOLOGY

BACKGROUND OF THE INVENTION

The invention relates generally to a method of sharing contents, and
5   more particularly to a method of sharing contents among multiple users using
WebDVD technology.

WebDVD, also known as Internet DVD, online DVD, enhanced
navigation (ENav) DVD, etc., is a powerful concept of enhancing DVD-Video
with Internet technology. The DVD Forum, which is an industrial consortium
10   (http://www.dvdforum.org), is defining a standard for web contents linked to
WebDVD-Video discs. When a DVD disc containing a link to a web site is
inserted into a WebDVD player, a user can gain new experience by
combining the local DVD video with the Internet enhanced contents relating
to this specific DVD disc. The Internet enhanced contents may include new
15   versions of DVD menus, pictures, audio or subtitles synchronized with the local
DVD video.

Since the main purpose of the WebDVD is to combine the Internet
enhanced contents with movie titles from studios, WebDVD discs are usually
published in a ROM format. Users can only view the Internet enhanced
20   contents without being able to share their own contents with other users. In
order to share their own contents with other users, users traditionally have to
do authoring using professional authoring tools and then put up their
contents on a web site to allow others to access the web site to view and
download the contents.   This is typically done in a PC environment.
25   However, in the PC environment, it usually requires not only computer skills

but also in-depth Internet knowledge from a user. In some cases, programming skills are also required. All of these make it too complicate for an average user.

5   Therefore, there is a need for a new and easy approach for sharing contents among multiple users on the Internet that will take the full advantage of the WebDVD technology.

SUMMARY OF THE INVENTION

The present invention provides a method of sharing contents among 10   multiple users on the Internet, using the WebDVD technology.

According to one embodiment of the invention, a method for sharing contents on the Internet is provided. The method comprises the steps of: accessing a web server via a WebDVD player/recorder; uploading contents to the web server, via the player/recorder, for sharing the contents with other 15   users; viewing contents uploaded to the web server via the player/recorder; and selectively recording the uploaded contents via the player/recorder.

In another embodiment of the invention, the method further comprises the steps of selectively editing the uploaded contents via a WebDVD player and submitting updated contents to the web server, via the player/recorder, 20   for sharing with other users.

In this way, a user can put up his own contents on the web server for sharing with other users and can update the contents on the server for sharing the updated contents with the other users. Alternatively, the user may use his WebDVD player/recorder as a web server and enable other

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users to access his player/recorder to view, modify or update the shared contents.

Other objects and attainments together with a fuller understanding of the invention will become apparent and appreciated by referring to the

5 following description and claims taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is explained in further detail, and by way of example,

10 with reference to the accompanying drawings wherein:

FIG. 1 shows an overview of implementing a method for sharing contents among users, in accordance with one embodiment of the invention; and

FIG. 2 is a flow chart diagram illustrating an operation of a WebDVD

15 player/recorder, in accordance with one embodiment of the invention.

Throughout the drawings, the same reference numerals indicate similar or corresponding features or functions.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

20   The present invention allows a user to put up various contents (e.g., photos, video, audio and animations) conforming to the WebDVD specification on a web site for sharing with other users. For example, any user may use a WebDVD player to view and record these shared contents on a

DVD RW disc for viewing them offline at a later time. A user can even edit
the downloaded contents and submit the edited version to the web site for
sharing with other users. Access to the web site that contains the shared
contents may be limited, via password protection, to a selected number of
5   users, e.g., family and friends.

FIG. 1 shows an overview of implementing a method for sharing
contents among users, in accordance with one embodiment of the
invention. In FIG. 1, multiple clients including client 1, client 2, ..., and client N
are connected to the Internet and access a web server 10 to share contents
10   among themselves. Clients 1 and 2 may be a computer and a WebDVD
player (also referred to as "Enhanced Baseline Video Player") respectively,
while client N may be WebDVD player/recorder (also referred to as an
"Enhanced Video Player/Recorder"). An Enhanced Baseline Video Player
supports only the mandatory features specified in the WebDVD specification,
15   while an Enhanced Video Player/Recorder supports both the mandatory and
optional features specified in the WebDVD specification plus a recording
feature.

To share contents with others, client 1 may upload multimedia
contents (e.g., photos, video, etc.) and navigation menu conforming to the
20   WebDVD specification to web server 10. Appropriate WebDVD authoring
tools, e.g., the eDVD and DVDit from Sonic Solution in California, U.S. and the
DVD Studio Pro from Apple Computers in California, U.S., may be adapted to
create these contents and the navigation menu.

Client 2, which is a WebDVD player, may be linked to a related web
25   site to access the shared contents uploaded to web server 10 by other
clients, such as client 1. The URL for the web site may be available from a
WebDVD disc or from a user's input. Client 2 enables a user to view the

shared contents by interacting with the enhanced navigation menu available on web server 10, which is a standard feature provided by the WebDVD ROM format.

Client N, which is a WebDVD player/recorder, provides not only the
5   normal functionalities available from a WebDVD player, but also simple "authoring" features that allow a user to edit and update the contents on the server. To use the extra functionalities of the device, a user may connect his digital camera (video or still) or other devices to the WebDVD player/recorder and design a navigation menu using the authoring features
10   on the player/recorder. After the authoring, he may save the contents on a DVD+R or DVD+RW disc or a hard disk in the player/recorder and upload the contents to web server 10 for sharing the contents with others. The user may submit a new version of the contents to the web server by, for example, modifying the contents on the server or adding contents to the navigation
15   menu, etc. The updated contents are again shared among users and may be recorded on optical discs along with the URL for this web site for distribution.   Alternatively, the user may simply use his own WebDVD player/recorder as a web server and enable others to access the player/recorder to view, modify or update the shared contents.

20   In FIG. 1, the multiple clients can be synchronized in response to, e.g., remote events or commands to enable the users to chat with each other while they are viewing the same contents online, since chat is an important WebDVD feature.

FIG. 2 is a flowchart diagram illustrating an operation of client N, a
25   WebDVD player/recorder, in accordance with one embodiment of the invention. After an insertion of a recordable optical disc (e.g., a DVD+R or DVD+RW disc) (step 102), the player/recorder checks whether a URL for

linking to a related web site is on the disc (step 106).   If not, the player/recorder will wait for a user's input to get the URL (step 112).   After obtaining the URL, the player/recorder will link the disc to the related web site (step 116) and download an enhanced navigation DVD menu from the web

5   site to automatically start the content navigation (step 118).   The user may view any shared contents already put up on the web server and selectively record them (step 122).   The enhanced navigation menu and other contents may be recorded on either the disc or a hard disk in the player/recorder. The user can then edit the recorded contents using the WebDVD authoring

10   tools on the player/recorder (step 136) and submit the updated contents to the web server for sharing with other users via respective clients (step 142).

In the above, for better offline playback after recording, the absolute URLs of media objects should preferably be modified to corresponding relative URLs to allow the media objects to be locally referenced.

15   While the invention has been described in conjunction with specific embodiments, it is evident that many alternatives, modifications and variations will be apparent to those skilled in the art in light of the foregoing description.   Accordingly, it is intended to embrace all such alternatives, modifications and variations as fall within the spirit and scope of the

20   appended claims.